607126

UNITED STATES PATENT AND TRADEMARK OFFICE **CERTIFICATE OF CORRECTION**

PATENT NO.

: 6,796,418 B1

: September 28, 2004 DATED

Page 1 of 6

INVENTOR(S) : Harrison et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Drawing sheets, consiting of Fig. 1 thru Fig. 8, should be deleted and replaced with the drawing sheets, consisting of Fig. 1 thru Fig. 8, as shown on the attached pages.

Signed and Sealed this

First Day of March, 2005

JON W. DUDAS Director of the United States Patent and Trademark Office

(12) United States Patent Harrison et al.

(10) Patent No.:

US 6,796,418 B1

(45) Date of Patent:

Sep. 28, 2004

(54) ADDITION OF INTERMEDIATE SUPPORTS FOR SPIRAL CONVEYORS

(75) Inventors: James J. Harrison, Bernville, PA (US); William J. Werner, Bedford, OH (US)

(73) Assignee: KVP Corporation, Reading, PA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(h) by 0 days.

(21) Appl. No.: 10/607,126

(56)

(22) Filed: Jun. 26, 2003

-(51) Int. Cl.⁷ B65G-13/02, B65G-21/00

References Cited

U.S. PATENT DOCUMENTS

3,260,350 A	•	7/1966	Martin 198/602
3,826,352 A		7/1974	Van Zon et al.
3,857,476 A	٠	12/1974	Heifetz et al 198/778
4,013,167 A	٠	3/1977	Bourgeois 198/860.2
4,325,480 A		4/1982	Butt,
4,901,844 A		2/1990	Palmaer et al.
4,932,516 A		6/1990	Andersson
5,111,929 A		5/1992	Pierick et al.
5,186,314 A		2/1993	Clopton
5,310,045 A	•	5/1994	Palmaer et al 198/778

5,328,020	Α		7/1994	Clopton
5,454,467	Α	٠	10/1995	Lago 198 831
5.584,377	Α	٠	12/1996	lago 198 S41
5,788,056	Α		8/1998	Clopton
5,803,687	Α		9/1998	Ledingham
6,296,111	Вı		10/2001	Mekanik et al.
6,484,379	B 2		11/2002	Palmaer
6,523.679	Вı		2/2003	Manchester
6,533,108	Βı		3/2003	Ledingham
6,666,322	B2	٠	12/2003	Biondi et al 198 347.1

* cited by examiner

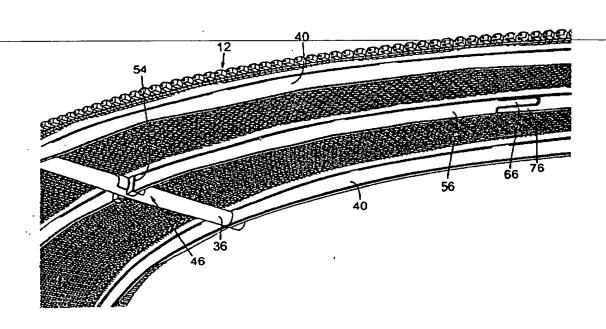
Primary Examiner—Douglas Hess

(74) Attorney, Agent, or Firm-Thomas N. Freiburger

7) ABSTRACT

A helical or "spiral" conveyor belt system is retrofitted with further belt supports, added between existing belt supports, when needed for heavier loading, preferably without removing the belt from the spiral support structure. The additional support apparatus includes a series of snap-on plastic brackets, to be snapped over the cantilevered bars that extend horizontally inwardly at intervals to support the belt. These brackets form channels within which a set of metal rail members are held, the rail members being in sections securable together around the helical path. A U-shaped wean strip, preferably continuous, is placed down over the metal without removal of the belt, which can be lifted in place sufficiently to assemble the intermediate support components.

22 Claims, 7 Drawing Sheets



Sep. 28, 2004 Sheet 1 of 4

6,796,418 B1

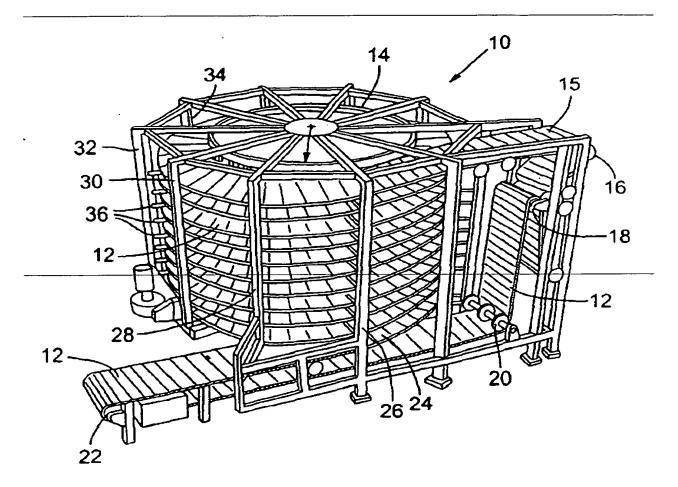


FIG. 1 Prior Art

Sep. 28, 2004

Sheet 2 of 4

6,796,418 B1

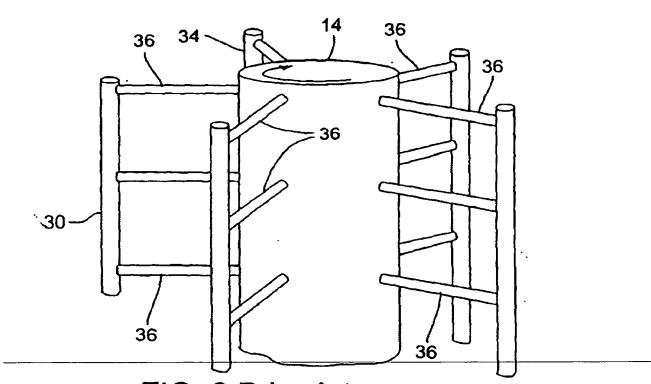
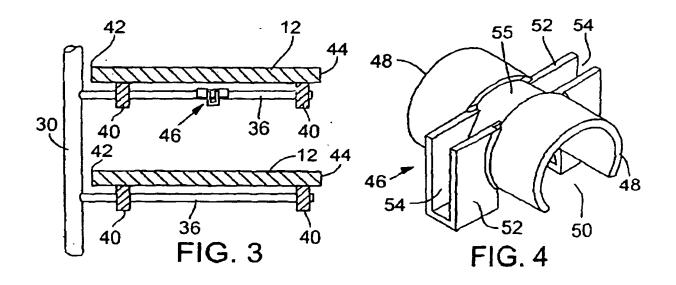


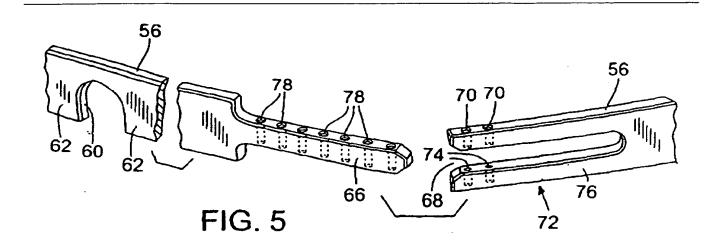
FIG. 2 Prior Art

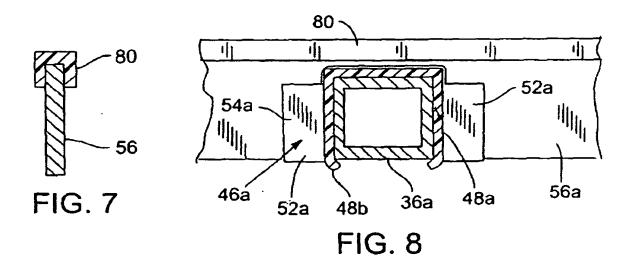


Sep. 28, 2004

Sheet 3 of 4

6,796,418 B1





Sep. 28, 2004 Sheet 4 of 4 6,796,418 B1

